



UNITED STATES PATENT AND TRADEMARK OFFICE

lu
UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/828,391	04/19/2004	Gunter W. Brune	DCI-20C3	4830
21833	7590	09/22/2004	EXAMINER	
PRITZKAU PATENT GROUP, LLC			AURORA, REENA	
993 GAPTER ROAD			ART UNIT	
BOULDER, CO 80303			PAPER NUMBER	
			2862	

DATE MAILED: 09/22/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/828,391

Applicant(s)

BRUNE ET AL.

Examiner

Reena Aurora

Art Unit

2862

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 - 19 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1, 11, 12 and 18 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 04/19/04.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Specification

1. The disclosure is objected to because of the following informalities: At page 1, line 4, applicant is required to change the patent number 6,406,008 to 6,496,008.

Appropriate correction is required.

Claim Objections

2. Claim 1 is objected to because of the following informalities:
3. As to claims 1 and 11, it is not clearly defined how a cable line angular orientation limits the possible directions to the cable line. What is the particular orientation of the potable locator relative to the cable line?
4. As to claim 1, the phrase "the possible directions to the cable line" is not clearly defined.
5. As to claim 6, it is not clearly defined what is moving in the actual direction of the cable line.
6. Appropriate correction is required.
7. For the purpose of rejection, examiner is interpreting the phrase "cable line angular orientation" in claims 1 and 11 as "predicted location of the locate points".

Double Patenting

8. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the

Art Unit: 2862

unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

9. Claims 1, 11, 12 and 18 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1, 10, 11 and 13 respectively of U.S. Patent No. 6,496,008. Although the conflicting claims are not identical, they are not patentably distinct from each other because claims 1, 11, 12 and 18 of the instant application are broader than and encompass the boundaries of claims 1, 10, 11 and 13 respectively of U.S. Patent No 6,496,008 and therefore are an obvious variance from the prior defined invention.

Claim Rejections - 35 USC § 102

10. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

11. Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Peterman (4,387,340).

Art Unit: 2862

12. As to claim 1, Peterman discloses an apparatus to measure the distance to a concealed object radiating an electromagnetic signal wherein a local flux intensity of the locating signal (14) is being measured at a first above ground point (12) within the region using a portable locator in a particular orientation; and the local flux intensity is used to establish a cable line angular orientation (32) relative to the particular orientation of the portable locator (10) at the above ground point (12) (col. 2, lines 38 – 41, lines 47 – 65 and col. 3, lines 7 and 8).

Allowable Subject Matter

13. Claims 2 – 10, 13 – 17 and 19 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

14. The following is a statement of reasons for the indication of allowable subject matter: As to claims 2 – 5, the prior art fails to establish a vertical flux slope orientation at the above ground point; selecting the actual direction of the cable line based on the vertical flux orientation. These features taken together with the other limitations of the claims renders the claims allowable over the prior art. As to claims 6 – 9, the prior art fails to use additional flux intensity to establish an additional cable line angular orientation which establishes new possible directions to the cable line relative to the new particular orientation of the locator at the above ground point; and selecting a new actual direction of the cable line from the new possible directions based on the certain characteristics of the locating signal. These features taken together with the other

Art Unit: 2862

limitations of the claims renders the claims allowable over the prior art. As to claim 10, the prior art fails to display the cable line orientation based on the expression $\tan y = b \text{ sub } y / b \text{ sub } x$. This feature taken together with the other limitations of the claim renders the claim allowable over the prior art. As to claims 13 and 14, the prior art fails to disclose the position of the cable line irrespective of a predetermined degree of variation in orientation of the portable locator. This feature taken together with the other limitations of the claim renders the claim allowable over the prior art. As to claim 19, the prior art fails to display the cable line orientation based on the expression $\tan y = b \text{ sub } y / b \text{ sub } x$. This feature taken together with the other limitations of the claim renders the claim allowable over the prior art.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Reena Aurora whose telephone number is 571-272-2263. The examiner can normally be reached on Monday - Friday, 7:00 - 3:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, N. Le can be reached on 571-272-2233. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2862

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Reena Aurora



JAY PATIDAR
PRIMARY EXAMINER